

# G-857

## Portable Proton Magnetometer



G-857 and Optional Garmin® GPS

The G-857 provides a reliable, low-cost solution for a variety of magnetic search and mapping applications. Single keystroke operation means the G-857 can be operated by non-technical field personnel and used in teaching environments. The G-857 uses the well-established proton precession method, allowing accurate measurements to be made with virtually no dependence upon variables such as sensor orientation, temperature or location. The unit provides a repeatable absolute total field magnetic reading, traceable to the National Institute of Standards and Technology.

Optional GPS allows data to be stamped with time and lat/long positions. Quickly and easily upload GPX waypoint survey routes to the GPS for in-field navigation using MagMap software.

### APPLICATIONS

The G-857 is ideal for mapping geological structures, for mineral exploration, and magnetic search for industrial, environmental or archaeological targets. It has been used extensively for calibrating fluxgate magnetometers that are used for directional drilling applications. The optional gradiometer attachment gives greater resolution and noise immunity for conducting searches in industrial or high cultural noise environments. Simple operation, large digital data storage capacity, and the inclusion of MagMap data transfer and editing software provides a system well-suited for both teaching and survey applications.

The automated cycling option with long sensor cable and external power connection allows the G-857 to be used as a base station

instrument for the measurement of diurnal changes in the Earth's magnetic field. Diurnal correction data is then downloaded using MagMap and can be applied to other land or airborne magnetic data.

The G-857, based on the popular G-856AX (over 2,800 units sold), provides excellent performance and is the lowest-priced professional magnetometer system available. Combined with ease-of-use, user-friendly download/editing software, and readily-available commercial contouring programs, the G-857 represents a complete magnetic surveying package generating high-quality data for budget-conscious users.

### FEATURES & BENEFITS

- **Versatile** - Use as a single sensor magnetometer, vertical gradiometer, or base station for diurnal corrections.
- **Economically Priced** - Great for academic settings, small companies, or personal hobbies, as well as professionals in the oil and gas industry.
- **Great for Any Application** - Well suited for mapping geological structures, mineral exploration, and search for industrial, environmental, or archaeological targets.
- **Easy to Operate** - Designed for use by experienced and non-skilled personnel.
- **Rugged Weatherproof Construction** - Works in extreme weather and temperatures.
- **Optional Integrated GPS with In-Field Steering** - Now data points can be stamped with GPS position and time.

# SPECIFICATIONS | G-857 Portable Proton Magnetometer

**Resolution:** 0.1 nT.

**Clock:** Julian date, accuracy 5 sec. per month.

**Tuning:** Auto or manual, range 20,000 to 90,000 nT.

**Gradient Tolerance:** 1000 nT/meter.

**Max Sample Rate:** 0.6 Hz.

**Read:** Manual, or auto cycle for base station use.

**Memory:** 65,000 field or base station readings.

**Display:** Six-digit display of field/time, three-digit auxiliary display of line number, day.

**Digital Output:** RS-232, switch-selectable to 115200 baud.

**Digital Input:** Will accept external cycle command.

**Physical:** Console: L: 18 cm; W: 27 cm; H: 9 cm; Weight: 2.7 kg (7x10.5x3.5 in; 6 lb).

**Sensor:** DIA: 9 cm; L: 13 cm; Weight: 1.8kg (3.5x5 in; 4 lb).

**Environmental:** Meets specifications within 0° to +40°C (+32° to +105°F).

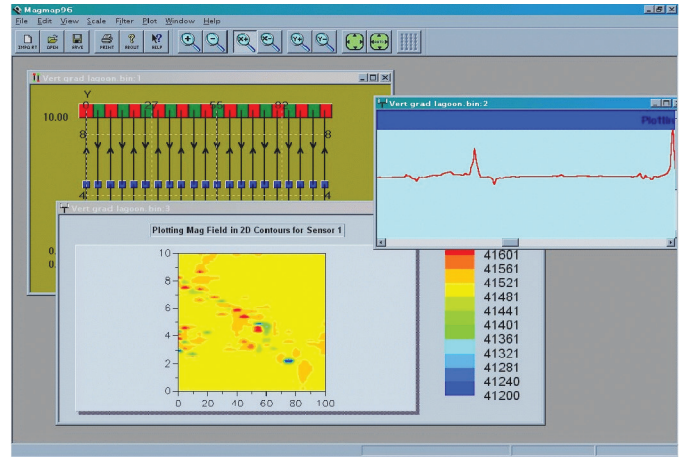
Will operate satisfactorily from -20° to +50°C (-40 to +122°F).

**Power:** 12 Volt rechargeable Gel Cell.

**Standard Accessories:** Sensor, staff, chest harness, two sets of batteries, RS-232 cable, USB Serial adapter, operations manual, applications manual, MagMap software.

**Options:** Gradiometer attachment, external power/RS-232/sensor cable, rechargeable battery and charger set, Garmin® Oregon 600® GPS.

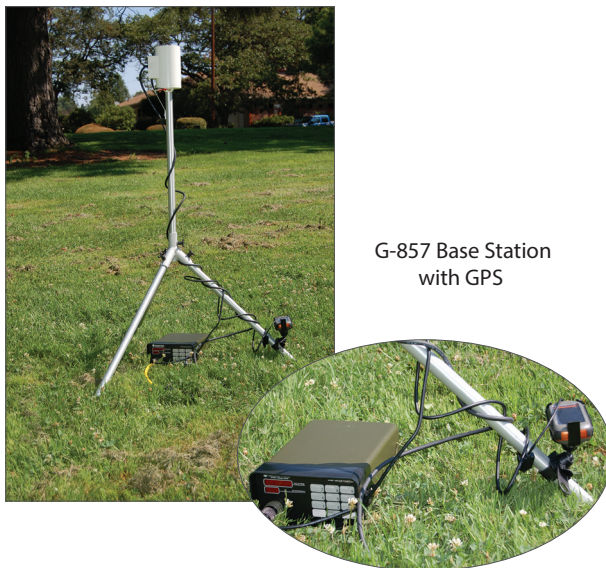
*For more information, please contact us.*



MagMap Display Screen

## Superior Data Editing Software:

MagMap allows rapid download of data from the G-857 to a PC. Data can be diurnally corrected; profile lines and positions displayed and edited; noisy readings filtered and 2D contour and 3D surface plots made. The GPS wizard allows GPX survey routes with waypoint correction to be generated for more accurate navigation. Data can be exported in a format acceptable to Surfer, Geosoft or Geometrics' MagPick for more sophisticated final maps and analysis. The software runs under MS Windows XP/7/8 or newer.



G-857 Base Station with GPS



Specifications subject to change without notice. G-857DS\_v1 (0117)